Product datasheet

Anti-Endothelial Cell antibody [RECA-1] ab9774

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Overview

Product name  Anti-Endothelial Cell antibody [RECA-1]
Description  Mouse monoclonal [RECA-1] to Endothelial Cell
Host species  Mouse
Tested applications  Suitable for: ICC/IF, IHC-P, IHC-G, IHC-Fr, IHC-FrFl
Species reactivity  Reacts with: Rat
Immunogen  Peripheral and mesenteric lymph nodes from AO rat
Positive control  RECA-1 FFPE section (IHC)
General notes  RECA-1 reacts with rat endothelial cell antigen and showed to be reactive with all vascular endothelium in three tested rat strains of different MHC-haplotype; Lewis (TR-11), BN (RT-1n) and OA (RT-1u). RECA-1 recognises a cell surface antigen. The antibody has been successfully applied in staining of viable endothelial cells in vitro, and of vascular endothelium in vivo. No reactivity of RECA-1 was seen with other cells e.g. fibroblasts, leukocytes and non endothelial stromal cells nor with other various tested species other than rat e.g. mouse, rabbit, sheep, goat and human. RECA-1 is a promising antibody for rat endothelial cell studies, and in particular for further defining nature and function of endothelial cell-specific antigens.

This antibody clone is manufactured by Abcam. If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact orders@abcam.com or you can find further information here.

Properties

Form  Liquid
Storage buffer  pH: 7.40
Preservative: 0.02% Sodium azide
 Constituents: PBS, 6.97% L-Arginine
Purity  Immunogen affinity purified
Primary antibody notes  RECA-1 reacts with rat endothelial cell antigen and showed to be reactive with all vascular endothelium in three tested rat strains of different MHC-haplotype; Lewis (TR-11), BN (RT-1n) and OA (RT-1u). RECA-1 recognises a cell surface antigen. The antibody has been successfully applied in staining of viable endothelial cells in vitro, and of vascular endothelium in vivo. No
reactivity of RECA-1 was seen with other cells e.g. fibroblasts, leukocytes and non endothelial stromal cells nor with other various tested species other than rat e.g. mouse, rabbit, sheep, goat and human. RECA-1 is a promising antibody for rat endothelial cell studies, and in particular for further defining nature and function of endothelial cell-specific antigens.

**Clonality**
Monoclonal

**Clone number**
RECA-1

**Isotype**
IgG1

### Applications

Our **Abpromise guarantee** covers the use of **ab9774** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration. Fix tissue in 2% paraformaldehyde in PBS (pH 7.4) for 3 hours and maintain overnight in 6% sucrose in PBS, rinse with acetone, and embed in Technovit 8100 (glycol methacrylate). Do not perform antigen retrieval (see Duijvesteijn AM et al. for details).</td>
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<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 10 µg/ml.</td>
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<tr>
<td>IHC-G</td>
<td>1/10 - 1/50.</td>
<td></td>
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<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/50.</td>
</tr>
<tr>
<td>IHC-FrFl</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration.</td>
</tr>
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### Target

**Relevance**

The endothelium is a single layer of cells lining various organs and cavities of the body, especially the blood vessels, heart, and lymphatic vessels. Endothelial cells line the entire circulatory system, from the heart to the smallest capillary. Endothelial cells are involved in many aspects of vascular biology, such as vasoconstriction and vasodilation, and hence the control of blood pressure; blood clotting (thrombosis & fibrinolysis); atherosclerosis; formation of new blood vessels (angiogenesis) and inflammation and swelling (oedema). Endothelial cells also control the passage of materials, and the transit of white blood cells, into and out of the bloodstream.
IHC image of Endothelial Cell staining in Rat brain FFPE section, performed on a BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab9774, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Frozen sectioned rat brain tissue stained for Endothelial Cells using ab9774 at 1/400 dilution in immunohistochemical analysis.
ab9774 staining cells of rat liver sections by IHC-Fr. Cells were acetone fixed and blocked with 1% BSA for 5 minutes at 25°C prior to incubating with ab9774 diluted 1/25 for 30 minutes at 25°C. An Alexa Fluor® 488 conjugated goat anti-mouse antibody was used as the secondary.

Double IIF labeling with RECA-1 (Green) and dipeptidyl peptidase IV (Red)

ab9774 staining endothelial cells in Rat lung tissue by Immunohistochemistry (Frozen sections). The sections were fixed in acetone prior to blocking with 100% SuperBlock Blocking Buffer for 20 minutes at 23°C. The primary antibody was diluted 1/100 and incubated with the sample for 12 hours at 4°C. A Biotin-conjugated Rabbit anti-Mouse polyclonal was used as the secondary antibody, diluted 1/200.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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